

Claims

1. A lithium tantalate substrate having volume resistivity which has been controlled within the range 5 of from more than  $10^8$  to less than  $10^{10}$   $\Omega\text{cm}$ .

2. The lithium tantalate substrate according to claim 1, which has a heat history of being subjected to heat treatment at a temperature kept to from 350 to 10  $600^\circ\text{C}$ , in the state of being buried in a mixed powder of Al and  $\text{Al}_2\text{O}_3$ .

3. A process for manufacturing a lithium tantalate substrate by using a lithium tantalate crystal grown by the Czochralski method, wherein; 15 a lithium tantalate crystal worked in the state of a substrate is buried in a mixed powder of Al and  $\text{Al}_2\text{O}_3$ , followed by heat treatment carried out at a temperature kept to from 350 to  $600^\circ\text{C}$ , to manufacture 20 a lithium tantalate substrate having volume resistivity which has been controlled within the range of from more than  $10^8$  to less than  $10^{10}$   $\Omega\text{cm}$ .

4. The process for manufacturing a lithium tantalate substrate according to claim 3, wherein said 25 heat treatment is carried out in a reduced-pressure

atmosphere of an inert gas.